4-21-1989

Phosphate/ Elpo Sheet-Metal Clamp-Down Vision Verification System

Glynn R. Meienburg
Indiana University - Purdue University Fort Wayne

PHOSPHATE/ELPO SHEET-METAL CLAMP-DOWN

VISION VERIFICATION SYSTEM

SENIOR DESIGN PROJECT
EET 491

PREPARED FOR

PROFESSOR P. I. LIN
PROFESSOR R. D. HACK
AND THE EET DEPARTMENT
IPFW

APRIL 21, 1989

PREPARED BY

GLYNN R. MEIENBURG

ABSTRACT

OF

PHOSPHATE/ELPO SHEET-METAL CLAMP-DOWN

VISION VERIFICATION SYSTEM

Glynn R. Meienburg

April 21, 1989

This project provides General Motors (Fort Wayne Assembly) with assurance that the truck cabs and boxes are properly latched onto the "Elpo" carrier prior to entering the Phosphate/Elpo process. An Allen Bradley 2805 vision system was chosen for this operation based on cost and adaptability to programmable logic controllers currently in use. Although the estimated cost for this project was $150,000, the actual cost will be around $123,000 which is well below the proposed budget. System tests have occurred since March of 1988 ensuring that General Motors obtained a reliable and accurate system. Blue prints, electrical schematics, and appendices are included in the back of this report. Because of the success of this project, General Motors' Pontiac truck plant is in the process of building an identical system to be used in their plant.

TABLE OF CONTENTS

TABLE OF CONTENTS